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ABSTRACT

Based on direct observations of the family, this paper analyzes the teaching strategies used by a Puerto Rican kindergartner's older siblings and extended family members to teach school-related knowledge and skills. As the family's instruction was conducted in Spanish only, these teaching strategies are analyzed in relation to those used by the boy's bilingual kindergarten teacher. One goal of this analysis is to provide early childhood teachers with insight into the teaching and learning that occur in children's homes and into the ways these processes are different from and the same as those that occur in their classrooms. The analysis is based on the assumption that knowledge of young children's home learning experiences is crucial for the construction of productive school learning experiences and for the identification of resources within the home to support school learning. The strategies analyzed include: (1) assessing/evaluating; (2) prompting; (3) informing; (4) teasing; (5) confirming; (6) scaffolding; (7) illustrating; and (8) requesting clarification. A chart of the teaching strategies used by siblings during teaching/learning interaction is included. Contains 33 references. (JPB)

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ED 420 396

"The teaching and the enjoyment and being together...": Sibling Teaching in the Family of a Puerto Rican Kindergartner

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At home, Nelson Maldonado[1], his parents, older sister, Yvette, two older brothers, and brother's wife, Zulma, sit around the kitchen table. Nelson, a Spanish dominant, Puerto Rican five-year-old, is writing numbers and the others are talking. Zulma has been teasing him, trying to get him to display his knowledge by saying his address. When he refuses to respond, she asks more directly, sounding like a teacher in the first turn of the excerpt below as she uses questions to assess his knowledge. Then Zulma and Yvette work together, providing information and asking more teacher-like questions. They do not evaluate Nelson's responses. Nelson plays an active role, asking them a question about what he wants to learn. (Slashes indicate overlapping speech.

Zulma:	¿Cuál es el número? ¿Cuál es el número de aquí? [What's the number? What's the number here?]
Nelson:	(ignores her, writes P) Después de esta ¿cuál viene? ¿La A? [After this one which one comes? The A?]
Yvette:	¿Qué tú vas a escribir allí? [What are you going to write there?]
Nelson:	Papá. [Daddy.]
Yvette:	A.
Nelson:	(writes)
Zulma:	Mjum. //¿Después?// [Mhum. Next?]
Yvette:	//P.// Pero la chiquita. A. [P. But the little one. A.]
Nelson:	(writes)
Yvette:	Y más nada. [And nothing else.]
Zulma:	¿Qué dice allí? [What does it say there?]
Nelson:	Papá. [Daddy.]
Zulma:	(turns to father to talk)

My purpose in this paper is to describe the teaching strategies used by Nelson's older siblings and members of his extended family to teach him school-related knowledge and skills as they do in the above excerpt. A secondary purpose is to analyze the strategies in relation to those used by Nelson's bilingual kindergarten teacher. This work is part of a broader study (Volk, 1997) I conducted in which I explored continuities and discontinuities between language use in teacher-child and parent-child interactions in the classroom and homes of Nelson and Mónica, another kindergartner.

One goal of this work is to provide early childhood teachers with insight into the teaching and learning that occur in children's homes and into the ways these processes are different from and the same as those that occur in their classrooms. This work is based on the assumption that knowledge of young children's home learning experiences is crucial for the construction of productive school learning experiences and for the identification of resources within the home to support school learning. With this knowledge, teachers can build on families' strengths and expand their own teaching repertoires. With some families, they will come to see that <u>family</u> involvement that includes siblings and other family members--rather than merely <u>parent</u> involvement--is a viable source of support for children's learning. They may come to appreciate the skill with which these family members teach and the variety of strategies that they use to teach school-related knowledge and skills at home.

Knowledge of home learning experiences is especially relevant to early childhood teachers today as they face the challenge of working with families from varied backgrounds. Though cross-cultural knowledge is stressed in recent

formulations of developmentally appropriate practice (Bredekamp & Copple, 1997), there are few resources available to help teachers learn about Latino children, in general, and about Puerto Rican children, specifically.

This work provides a window into teaching and learning in the Maldonado family. It is about just one Puerto Rican family that appears to be similar to many in a city where the majority of Latino children live in poor families and where most Latino adults have less than a high school education. It focuses on some of the Maldonados' resources as a family. If care is taken when generalizing from this description, this work may help teachers learn about other Latino families as well as families from other cultures.

Insights from the Previous Study

The broader study (Volk, 1997) of Nelson and Mónica revealed continuities and discontinuities in adult teaching styles between the home and school settings. Mrs. Martin, the teacher, is Puerto Rican and is fluent in Spanish and English. In interviews, she explained that she believed the children in her class could be successful in school and that it was important for them to maintain their first language as she introduced English. To achieve these goals, she created a comfortable but challenging atmosphere and organized concrete learning experiences to help children develop both languages.

Mrs. Martin described Latino children as dependent on their parents and passive. She attributed these charactersitics to many Latino parents' tendency to keep their children safely indoors and the belief that it is the teacher's job to help their children academically. Though she was trained to use a child-centered approach, Mrs. Martin argued that she needed a more structured, teacher-centered approach because of the children's lack of experiences and apparent inability to participate actively and independently. She noted that, as a Puerto Rican, she was trying to be less authoritarian.

Mrs. Martin controlled lessons with her use of the recitation script, a script characteristic of many teachers (Volk, 1977) that is composed of two teaching strategies: assessing and evaluating. The script begins with known information or assessment questions ("What day is it today?" or "What sound do you hear first?") used by teachers to elicit correct answers from children in order to assess their knowledge. Children's responses are followed by an evaluation from the teacher and, usually, a new question. This pattern is called the initiation-response-evaluation (IRE) sequence (Mehan, 1979).

Though Mrs. Martin's lessons were driven by her assessing and evaluating, she also used other strategies. When children were unable to answer her questions, she used prompting to help them answer successfully. Often this meant giving children added information until they were able to arrive at the right answer. At other times, she made a point of asking another for help, scanning the group for volunteers. When she was unclear about what they had said, she tried requesting clarification. She often used repetition of the child's response as an evaluation, repeating a correct response and repeating it as a question if it were not.

Occasionally, when Mrs. Martin was trying to expand the children's abilities to express themselves and was less concerned about right answers, she asked more open-ended questions, scaffolding the children's responses and helping them create more complex answers. When introducing new concepts, Mrs. Martin was adept at demonstrating them with concrete materials and experiences. At other times, she might share information, informing the

children about what they needed to know. Throughout the day, Mrs. Martin spent much time regulating the children's behavior and focusing them on tasks. She frequently called them to attention and reminded them of how to behave, sometimes sounding as they were engaged in joint activity as peers. Thus, she might say, "Are we ready?" and "Let's do one we know."

All of these strategies except scaffolding were ones in which Mrs. Martin took responsibility for initiating and guiding learning. Her use of these strategies was consistent with her beliefs about what the children needed because of both their culture and their experiences. At the same time Mrs. Martin felt ambivalent about practices that were so teacher-centered.

Observations and tapings in Nelson and Mónica's homes revealed that their parents prepared them to succeed in school by teaching them school-related knowledge and skills such as writing numbers and letters. They also taught them to respect their teachers. Consistent with these goals, they used the recitation script in lessons with their children. Though these lessons were infrequent, the children participated actively, asking questions and initiating topics, in contrast to their school behavior. These findings suggested that the children's "passivity" in school could be explained not only by differing understandings of parent and teacher roles but also by socialization practices that emphasize respect for adults and by Mrs. Martin's teacher-centered approach (Volk, 1997).

While observing the parent-child lessons in the homes, I realized that older siblings together with some members of the children's extended families played with Nelson and Mónica frequently and that school content was often introduced into these interactions. Consequently, after Mónica's family moved to Puerto Rico, I planned to learn more about the teaching strategies used by Nelson's siblings and other family members.

As will be described in this article, I found that a group composed of Nelson's 7, 17, and 19 year old brothers, his 14 year old sister, plus his 18 year old sister-in-law, and 21 year old aunt and uncle engaged with Nelson, individually and together, in frequent teaching interactions. They often coordinated their teaching, as Yvette, the sister, and Zulma, the sister-in-law, did in the opening excerpt. They appeared to function in the service of shared family goals. Moreover, their teaching supported and complemented the parents' formal lessons.

For these reasons, and with a rationale grounded in the cross-cultural literature to be described below, I decided to refer to these family members as a sibling group or, more simply, just older siblings. Together, they appeared to play an important role in Nelson's education. By syncretizing styles of teaching characteristic of the parents and the teacher, by drawing on teaching styles from their own schooling and their culture and religious learning, the older siblings functioned together as cultural and linguistic mediators for Nelson, helping him learn to learn in many contexts.

Theoretical Framework

Neo-Vygotskians (Moll, 1990; Rogoff, 1990; Tharp & Gallimore, 1988) argue that children's development and learning are embedded in a sociocultural process. Children experience culturally appropriate patterns of thinking and communicating in interactions with more competent members of their culture, be they adults, siblings, or peers (Rogoff, 1990). As children participate in the interactions, they appropriate these patterns, acquiring the means to be competent members of their cultures themselves.

In Vygotsky's terms, these interactions occur in a zone of proximal development (zpd), a range of emerging behaviors bounded at one end by what the child can do alone, independent performance, and at the other by what the child can do with help, assisted performance. Within the zpd, the expert scaffolds the novice's learning, providing assistance that is sensitive to the novice's needs while he/she actively participates (Bodrova & Leong, 1996).

Arguing that Vygotsky emphasized only academic and formal learning in his discussion of the zpd, Rogoff (1990) extends the concept to include all interactions with children that foster their development in culturally-relevant ways. She uses the term guided participation to describe the process, including both guidance by the expert and participation by the novice within the ever-evolving framework of each culture. Guided participation focuses on systems of relationships, not just isolated dyads, in relation to the local goals of development, that is, to what the community values.

Rogoff and her colleagues (Rogoff, Mistry, Goncu, & Mosier, 1993) studied guided participation in parent-toddler interactions in urban, middle class communities in Salt Lake City and in Turkey and in two rural communities, one a Guatemalan Mayan town and the other a tribal village in India. They found both universals and variations in the interactions between children and their parents. A central cultural difference was related to the degree to which children were integrated into adult social and economic activities and the orientation to schooling. In urban, middle class homes in the U.S. and, to some extent, in Turkey (where children tend to be segregated from adult activities and adults organize activities to prepare children for school), Rogoff et al. found a pattern of interaction in which parents took responsibility for the direct instruction of what they identified as important information and skills. Parents interacted with children as peers, though they directed the activity and provided motivation for engagement. Interactions were dominated by verbal communication and were dyadic, with parents and children attending to each other and ignoring others.

In Guatemala and India (where children tend to be integrated into adult activities and there is, therefore, less emphasis on separate learning activities for children) a different pattern emerged. Children learned important information and skills through their regular participation in adult activities, often as careful observers. Interactions with parents were usually embedded in other activities with multiple participants; parents and children attended to each other and to these other people and activities. Nonverbal communication played a key role. Children themselves were responsible for learning while parents, siblings, and others provided sensitive assistance.

Rogoff et al. (1993) note that these patterns are not mutually exclusive. For example, the Turkish families, who were making a transition from rural to urban settings, displayed aspects of both patterns. Purposeful borrowing is also possible, with "multidirectional enhancement" (p.158) the result. For example, families in which children learn through participation and observation can learn how to provide the more verbal and dyadic instruction found in many classrooms. Conversely, teachers more comfortable with a verbal approach can integrate activities in which children learn through observation.

In this paper I use the concept of guided participation as well as previous research about teacher interactions in school and about sibling interactions at home in the analysis of sibling teaching of school-related knowledge and skills. The research on siblings is discussed below.

A Cross-Cultural Look at Siblings

Most of the research on children's socialization is concerned with the mother-child dyad (Watson-Gegeo & Gegeo, 1989; Weisner & Gallimore, 1977). Nonetheless, much cross-cultural research shows that older siblings often play an important role in the care and education of young children (Cicirelli, 1995; Weisner, 1989; Weisner & Gallimore, 1977). Weisner and Gallimore, in their landmark investigation of sibling caretaking across cultures (1977), assert that "nonparental caretaking is either the norm or a significant form of caretaking in most societies" (p. 169). In some, sibling caretaking tends to be voluntary and siblings receive little training in what to do. In others, sibling caretaking is obligatory, with older siblings receiving socialization in how to care for younger siblings (Cicirelli, 1995). Such obligations are usually maintained even as siblings grow older.

Older siblings are often described as "cultural and linguistic brokers" (Watson-Gegeo & Gegeo, 1989, p. 70) for younger siblings, acting as caretakers with parents, not substituting for them (Bryant & Litman, 1987). These more expert members of a culture co-construct knowledge along with the novices, often interacting with distinctive styles (Farver, 1993; Weisner, 1989).

Older siblings accomplish a variety of tasks vis-a-vis younger ones. In many cultures, they assist parents in caregiving (Weisner & Gallimore, 1977). In others, they participate in the affective, social, or cognitive development of younger siblings, even though they may not have responsibility for care (Cicirelli, 1995). As younger children reach middle childhood, homework is often the object of their joint activity (Bryant & Litman, 1987).

Critically, the research suggests that the definition of "sibling" may vary between cultures (Cicirelli, 1995; Zukow, 1989). In industrialized societies, siblings tend to be defined on only a biological basis while in many non-industrialized societies, people use different criteria to identify siblings. Brothers and sisters plus cousins, aunts and uncles, grandparents, and non-biological relations may be included in the sibling group.

While the literature argues against generalizations (Weisner, 1989), some conclusions can be drawn. Research on Latino families (Farver, 1993; Sánchez-Ayéndez, 1988; Valdes, 1996) indicates that sibling caretaking and teaching are often a valued and obligatory aspect of family life. Raising children is seen as a collaborative endeavor within the context of a unified extended family that includes biological and non-biological relatives.

This research in conjunction with observations and interviews with the Maldonados provide a rationale for considering the non-parent group that worked with Nelson at home as older siblings. Overall patterns in their teaching are described here. Differences in teaching styles within this group related to age and sex (Dunn, 1992) will be investigated in future work.

Methodology

For the data collection and analysis, ethnographic techniques used in the study of cultural goals and practices were combined with ethnomethodological techniques used in the study of discourse patterns in individual interactions (Gregory, 1993). By describing participants and the tasks they accomplished in relation to their immediate motives and cultural values, the analysis linked culture at the broadest level with the level of interpersonal interactions without stereotyping individual behavior or fragmenting the picture of culture that emerged (Weisner, Gallimore, & Jordan, 1993).

The data collection was conducted primarily during one school year. Kindergartners were selected since they were experiencing the transition from learning at home to school. Nelson and Mónica were selected because they had typical language and social development. Mrs. Martin facilitated contact with their families, calling first and accompanying me on a home visit when I explained the study and obtained consent. We were served food, we chatted informally, and discussed educational concerns of the families.

For the broader study (Volk, 1997), I observed in the school and homes throughout the fall. I continued observing between January and April, also conducting audiotapings of the children and their speech partners. I taped the three-hour kindergarten session seven times and conducted tapings of between one and three hours in each home six times. Total observation time in the homes was about 40 hours. I conducted semi-structured interviews with the teacher and parents and held many conversations with them.

In the classroom, I sat on the side taking notes while Mónica, Nelson, and the teacher wore lapel mikes attached to cassette tape recorders hooked on a belt or in the pocket of a vest. A large tape recorder was used for whole group activities. When I was not taping or observing, I helped out in the classroom, functioning as Mrs. Martin's assistant.

In the homes, the target children wore the cassette recorders and I often left the large tape recorder on the kitchen table or the floor. I explained that I wanted to observe what would happen if I were not there and family members often appeared to be ignoring me as I sat to the side or in another room. At times, the mothers served me food and I often chatted with family members. Occasionally, Mónica and Nelson asked me to read a book or play a game. I usually interacted and then resumed my role as observer.

As a former early childhood teacher, I fit easily into the classroom. I had to work harder to bridge the differences between me and the parents. I know Spanish well enough to communicate socially, to observe, and interview. Though Anglo, I have had years of experience working with Latino families, in this country and in Latin America, and know how to interact in ways that accommodate to the families' styles. They referred to me as "la maestra" ("the teacher"), a person to be respected in Latino culture.

It could be argued that the family members engaged in the teaching I observed because I was there with my tape recorder. While it is possible that my presence elicited more frequent teaching than was typical, it was clear from the interviews and observations that the parents and older siblings knew how to teach the younger ones and did so when I was not there.

Two years after these observations, I returned to Nelson's home to learn more about sibling interactions. I interviewed Señora (Sra.) Maldonado and other family members and conducted ten hours of taping. I asked about how siblings had helped Nelson when had been in kindergarten and how they helped him now. I confirmed patterns that I had observed previously when my focus was on parent-child interactions.

Recordings were transcribed and translated by a native Spanish speaker who is Puerto Rican and fluent in English. Working with the transcripts and field notes, I first identified teaching interactions involving school-related content using the kindergarten curriculum supplemented by statements by the teacher, the parents, and siblings. The use of the recitation script for some of these interactions facilitated their identification. Moving between data on siblings, on parents, and on the teacher, I identified and categorized all the additional teaching strategies in the data. Then, using Rogoff's work (Rogoff

et al., 1993) and that of Gregory (1993) as a guide, I looked within the strategies to analyze the collaborative interactions of participants and looked beyond the strategies to understand the activities in which they were embedded. I analyzed who was involved, what they were doing, and their motives and cultural values. Patterns in sibling teaching interactions were compared with teaching patterns of the parents and teacher as well as those identified in previous research.

Contexts for Teaching

The Community

The study took place in a large city in a midwestern state that has had a thriving Puerto Rican community since the late 1940s. In 1990, there were 22,330 Latinos living in the city, representing 4.4% of the population. About 79% were Puerto Rican. Of those Latinos 18 years and older, only 24.08% were high school graduates. That same year, there were 4300 Latino children in the city's schools, representing 6% of all the students. Though 40% of the Latino population lived below the poverty level, 73% of the Latino children in the schools lived in families below the poverty level. In contrast, 30.3% of Latinos nationally lived below the poverty level in 1990 and about 30% graduated from high school (de Acosta, 1993; U.S. Bureau of the Census, 1990).

Participants

Nelson, 5.9 years old in September, was small for his age and had straight dark hair and olive skin. His two upper front teeth had been missing for several years, knocked out in an accident playing. At home Nelson was talkative and self-assured. In school he was more quiet, answering questions decisively and talking more with peers than in teacher-led, group activities.

Like all the children in his bilingual kindergarten, Nelson came from a family designated as low income and he was eligible for the school's free lunch program. In January, when the taping began, he was Spanish dominant, an emergent bilingual who used Spanish more competently than English.

Nelson's family had come to the city less than a year before the study after living in New York City and San Juan, Puerto Rico. His father worked in a factory; his mother was a homemaker. The parents had attended school in Puerto Rico through the tenth grade when they dropped out to get married.

In addition to Nelson and his parents, the family living at home included Robert, 7 years old, Yvette, 14, and Luis, who was 17. Nelson's 19 year old brother, Manuel, and his wife, Zulma, who was 18, lived nearby as did his uncle, Joey, and his wife, Nati, both in their early 20s. This sibling group interacted with each other almost every day, usually at the Maldonado's home, sometimes at their homes. Their obligation to participate in each other's care and education was articulated by Yvette who explained that the children had always helped each other and that she helped Nelson just as Luis and Manuel--and now Zulma, Joey, and Nati--continued to help her.

Tasks

The tapings were conducted on weekday afternoons and on Saturdays. During these times, many family members congregated in the small home. There were often simultaneous activities and conversations, with participants continually moving in and out of the talk and interactions. Family members who lived elsewhere went home and then called to talk some more.

Nelson and Robert played alone or together with action figures, studied their baseball cards, looked at books, watched television, threw a football,

worked on a jigsaw puzzle with Luis, and argued about Chinese checkers. Nelson, Yvette, and Robert played Connect Four, a checkers-type game. The family often sat around the kitchen table talking and eating; the children might write, draw, or do homework. Both parents checked to make sure the children did their homework and, during one observation, Sr. Maldonado helped Robert with his. The siblings helped each other with homework too and once Luis did Yvette's. During another observation, Sra. Maldonado read Nelson a story in Spanish and then helped him read the words in a Spanish primer. Several times the family studied the Bible together. Sra. Maldonado or an older sibling lead their study, calling on others to read or explain the text.

Nelson's parents, like Latino parents and those from other cultures as well (Gallimore and Goldenberg, 1993; Rogoff, 1990), identified the direct instruction of academic content by an adult as "teaching" and distinguished this from "play." Though the Maldonados did occasionally play board games with their children, in general, they did not play with them, believing that children should play alone or with other children.

Guided Participation: Teaching Strategies and Underlying Motives and Values

Immediate motives and cultural values

Like other poor Latino parents (Delgado-Gaitan, 1994; Soto, 1997; Valdes, 1996; Vasquez, Pease-Alvarez, & Shannon, 1994), Nelson's parents explained that they understood the importance of education in their children's lives. Like some, they asserted that parents were responsible for teaching the basics and proudly described how they had taught Nelson to write his name and identify colors, numbers, and letters. They said they expected their children to do well because they had provided this academic preparation and had taught their children to respect their teachers. In fact, Nelson did do well. In first grade, he received an award as the best student in his class.

During one of the interviews, I asked Nelson's mother to describe the most important thing she and her husband did to help their children in school. Her answer highlighted the family's role instead of teaching techniques.

> Yo encuentro que lo más importante es el que la familia esté unida y se muestre amor. Y allí es donde entonces el niño, pues, puede aprender más. Porque aveces ¿de qué le vale a uno enseñarle a uno una una matemática o eseñarle a escribir si en la familia no está unida ni hay amor? Ahora cuando toda la familia trabaja junto con todos los hijos yo encuentro que eso ayuda más a los niños. [I find that the most important thing is that the family is together and shows each other love. And there is where then the child, well, can learn most. Because sometimes what good does it do to teach someone math or teach them to write if the family is not together and there isn't love? Now when the whole family works together with all the children I find that helps the children most.]

Sra. Maldonado explained that the family was close because, as Jehovah's Witnesses, they studied the Bible together almost daily and all played a role in preparing each other to do well in school and in life. The older siblings too spoke about the closeness of their family and how they helped each other, about--in Manuel's words--"the teaching and the enjoyment and being together".

This perspective reflects the concept of bien educado, a valued personal characteristic in Latino culture. While the term literally means "well educated", it has both academic and moral aspects. Schooling by itself is not enough; a person who is bien educado is well-brought-up and knows how to act respectfully and correctly with others (Reese, Balzano, Gallimore, & Goldenberg, 1995; Valdes, 1996).

Less lofty motives were also apparent when the older siblings helped Nelson. When Luis worked on a puzzle with him and when Yvette played Connect Four with him, they worked hard to teach him needed skills and information while also trying to finish the puzzle or win the game. While Nelson was often eager to learn, it was apparent that he also wanted to put together a puzzle faster than his brothers and beat Yvette.

Sibling teaching strategies

The teaching strategies described below were identified in the sibling interactions in Nelson's home. Figure 1 illustrates the occurrence of these strategies. For each interaction analyzed, the focus, such as completing a puzzle or looking at stickers, is listed along with the participants, the strategies used, and the duration of the interaction. Each list of strategies indicates only that the older siblings used these strategies during the interaction. They might use each in one turn or over many; they might use a strategy once during an interaction or many times. In all cases, the strategies were embedded in the ongoing stream of activity and talk with multiple participants that occurred in Nelson's home.

Insert Figure 1 about here

The first group of strategies discussed below were used by the older siblings to direct Nelson's learning. They were not co-constructed by the older siblings working along with Nelson.

1) Assessing/Evaluating. The siblings used the teacher-identified recitation script to assess Nelson's knowledge of what they thought was important information, in school and in their religion. The following example occurred as family members sat around the kitchen table and several asked Nelson about a recent kindergarten field trip to a farm. Nati, his 20 year old aunt, first asked him an open-ended question, then a more specific assessment question, checking his knowledge of animal sounds. When he responded, she evaluated his response positively. Then Nelson, who was trying to draw a cow, asked for help. Others continued the assessment questions, asking about other animals. The use of this strategy by Nati and the others was identical to that of Sra. Maldonado and of Mrs. Martin who used this strategy in her lessons.

Nati:	¿Y qué más vistes allá, Nelson? [And what else did you see there, Nelson?]
Nelson:	Ovejitas. [Lambs.]
Nati:	¿Cómo hacian las ovejitas? Hazlo. [How did the lambs go? Do it.]
Nelson:	Baaa.
Nati:	Sí. Sí. Baaa. [Yes. Yes.]

2) Prompting. When Nelson did not know an answer, the siblings provided help with prompts or clues, usually by telling him parts of the word or phrase making up the correct answer to their questions. Mrs. Martin also used this strategy. In addition, she might string together a series of promoting questions that were easier and easier for the children to answer. In the following example, Nelson asked for help writing numbers. Yvette (age 14) and Sra. Maldonado collaborated to help him sound out the syllables for "vente"/"twenty" just as Yvette and Zulma collaborated in the opening excerpt.

Yvette: Ven ve ven ven ven ven. [Twen twe twen twen twen twen.]
Nelson: //Vente.// [Twenty.]
Sra M: //Te te te te te.// [Ty ty ty ty ty.]
Nelson: Vente. [Twenty.]
Sra M: ¿Cómo se escribe? [How do you write it?]
Nelson: Un dos y un cero. [A two and a zero.]
Sra M: Mjum. [Mhum.]

3) Informing. Sometimes the siblings just provided Nelson with the answer to his question or their own without prompting him to answer. This strategy was used in the article's opening excerpt. Nelson asked what letter came next and Yvette told him. Mrs. Martin also tended to use informing instead of prompting when prompting did not lead a child to the correct answer. Sometimes she began lessons or summarized them by informing children of the underlying concept or information.

4) Teasing. The siblings used teasing occasionally as a way of assessing Nelson's knowledge by urging him to demonstrate what the sibling knew he knew. This strategy was also used by his parents, but never by his teacher. In the example below, Nelson responded, but on his own terms.

Zulma: El no sabe cual es mi dirección....Nelson no sabe cual es la dirección de él, ¿verdad Nelson? [He doesn't know my address. ...Nelson doesn't know his address, right Nelson?]
Nelson: Yo la sé. [I know it.]

5) Confirming. While the siblings did use the third turn of the recitation script for evaluation with a "very good" or "yes,", they were more likely to use variations on this script, often just repeating or confirming Nelson's response. In the example below, Yvette repeated Nelson's turn in order to confirm it. In the example opening the article, Zulma (age 18) confirmed that Nelson had written an "A" properly with "Mhum" and then eliminated the third turn in the IRE sequence when he read his word correctly.

Yvette: Yo tengo cuatro también. Coge una roja. ¿Cuántas rojas tú tienes? [I have four too. Take a red one. How many reds do you have?]
Nelson: Uno dos tres cuatro. [One two three four.]
Yvette: Uno dos tres cuatro. Coge una roja. [One two three four. Take a red one.]

The next group of strategies were co-constructed by Nelson and his siblings. That is, Nelson and his siblings both played active roles as they developed the strategy together. They both asked questions, initiated topics, and appeared to assume responsibility for Nelson's learning.

6) Scaffolding. The older siblings sometimes provided scaffolding for Nelson's thinking, giving him assistance that made it possible for him to perform at higher levels. For example, after a game of Connect Four, Yvette asked Nelson an assessment question, "How many reds do you have?", as if announcing her role as teacher in a learning interaction. They then counted the game pieces until they got to nine, counting, then adding one more and counting again. At that point, Nelson seemed to get stuck. In the example below, Yvette told Nelson the next number and he repeated "Nine and ten." With her final "Then?", Yvette urged him to add one more to ten by himself, providing concrete assistance by giving them each one more piece. This scaffolding made it possible for Nelson to count to eleven, performing at a level beyond that of his independent functioning. Instead of evaluating his response, Yvette confirmed it in a statement about how many pieces he had.

Yvette: ¿Cuántas rojas tú tienes? [How many reds do you have?]
Nelson: Uno dos tres cuatro cinco seis siete ocho nueve. [One two three four five six seven eight nine.]
Yvette: Diez. Yo cojo //diez.// [Ten. I take ten.]
Nelson: //Nueve// y diez. [Nine and ten.]
Yvette: ¿Pues? [Then?]
Nelson: (to self) Nueve y diez. [Nine and ten.]
Yvette: Una para ti y una para mi. [One for you and one for me.]
Nelson: Ok. Nueve diez once. [Ok. Nine ten eleven.]
Yvette: Y yo ten-tú tienes //once rojas y yo once negras.//[And I ha- you have eleven reds and I have eleven blacks.]

Mrs. Martin also used scaffolding. She did so primarily when she was trying to expand the children's abilities to express themselves wih language, not when she was trying to teach them information.

7) Illustrating. As in the example above, abstract concepts were illustrated by Nelson and the siblings using the materials at hand. Thus, as Yvette and Nelson played with the red and black game pieces, Yvette taught Nelson about counting and colors. In other instances, Nelson initiated such activity, asking the older sibling to participate. Mrs. Martin used a similiar strategy, providing concrete demonstrations of concepts she was teaching.

8) Directing. Instead of asking or prompting, the siblings sometimes directed Nelson to take action and Nelson often directed them. In the counting interaction described above, Yvette repeats several times, "Take a red one" as she directs Nelson's behavior. Later Nelson directs her.

Nelson: ...Ahora mira. Mira ahora. Ahora. No no no pongas eso allí. Ahora vienes. Pon estas tres allí. Pon estas tres. Saca esa. Pon eses tres negras allí. Ya. [Now look. Look now. Now. No no don't put that there. Now come. Put these three there. Put these three. Take that one out. Put these three black ones there. Already.]
Yvette: ¿Aquí encima? [Here on top?]
Nelson: Allí encima. [There on top.]

The siblings' directing was similar to Mrs. Martin's regulating and focusing. Notably, Mrs. Martin often combined regulating with assessing, as when she asked, "Who can raise their hand and tell me the name of the month?"

9) Repetition/Overlapping speech. Repetition and overlapping speech were used by Nelson and his siblings together. The siblings' repetition sometimes served as confirmation of what Nelson had said as when Yvette, below, repeats Nelson's counting. At other times, the mutual repetition serves as a scaffolding for Nelson to perform beyond his level of independent performance. Here, Yvette and Nelson continually repeated each other's counting and counted simultaneously, co-constructing the sequence of numbers.

Yvette: ¿Cuántas negras tú tienes? [How many blacks do you have?]
Nelson: Uno dos tres cuatro. [One two three four.]
Yvette: Yo tengo cuatro también. Coge una roja. ¿Cuántas rojas tú tienes? [I have four too. Take a red one. How many reds do you have?]
Nelson: Uno dos tres cuatro. [One two three four.]
Yvette: Uno dos tres cuatro. Coge una roja. Uno dos tres //cuatro// cinco. [One two three four. Take a red one. One two three four five.]
Nelson: (to self) //Cuatro.// [Four.]
Yvette: Cinco. [Five.]
Nelson: (to self) Cinco. [Five.]

In the next example, Nelson, Robert (age 7), and Luis (age 17) worked on a jigsaw puzzle, co-constructing Nelson's learning. The brothers scaffolded Nelson's thinking by suggesting strategies for assembling the puzzle. Nelson's self-repetition of their comments seemed to be private speech used to guide his own thinking.

Luis: Todas las azules. Busca el cielo el cielo el cielo el cielo el cielo. Primero los azules. [All the blue ones. Look for the sky the sky the sky the sky the sky. First the blue ones.]
Nelson: This one.
Luis: Las azules. [The blue ones.]
Nelson: This one.
Luis: Pues sácalas aquí. [Then get them out of here.]
Nelson: (to self) Azules....Mira azul. Azul. [Blue ones....Look blue. Blue.]
Luis: Mjum. [Mhum.]
Nelson: (to self) Azul. [Blue.]
Luis: Pues búscalas y pónlas allí. [Then look for them and put them there.]

In contrast to the siblings' use of this strategy, Mrs. Martin used repetition only to confirm the children's responses to her questions. The children repeated after her only when instructed to do so.

10) Requesting clarification. At times, the siblings or Nelson made efforts to clarify each other's statements. The example below took place as the family sat around the table. Nelson's mother and Zulma made plans for the next day at the same time. Nelson sought clarification of Yvette's assistance. This strategy was used only occasionally by the teacher when she did not understand a child's response. It was almost never used by the children.

Yvette: Seis y un siete. [Six and a seven.]
Nelson: ¿Así es? [Like this?]

Sra. M: ¿Tú vas a predicar viernes Zulma? [Are you going to preach Friday Zulma?]
Nelson: ¿Ah? [Huh?]
Yvette: //Así.// [Like this.]
Zulma: //Tengo que predicar.// [I have to preach.]
Nelson: //No. ¿Así?// [No. Like this?]
Sra M: //¿Desde qué hora?// [At what time?]
Yvette: //No al revés. Así.// [No the other way. Like this.]
Zulma: //Voy a tratar de empezar// temprano. [I'm going to try to start early.]
Sra M: ¿Con //quién vas?// [Who are you going with?]
Zulma: //No tengo (unclear).// [I have no ( ).]
Sr M: (to Nelson) //Aquí no. Aquí.// [Not here. Here.]
Sra M: //Pero con// que este. ¿Tú vas en tu carro o no? ¿No? [But with that this. Are you going in your car or not? No?]
Zulma: No creo. [I don't think so.]
Yvette: Pero hazlo acá. [But do it here.]
Nelson: //(unclear)//
Zulma: //(unclear)//
Yvette: Déjalo. Está bien. [Leave it. It's fine.]

11) Negotiating. Nelson and his siblings frequently negotiated the correct answers to questions as well as what they were going to do together. The following excerpt comes from a long sequence that Nelson initiated as he tried to write numbers. His mother intervened with a known information question, "And what comes now after nineteen?" Nelson ignored her as he wrote the number 19. Eventually, the dispute between Nelson and Yvette about how to write a 9 was settled by Sra. Maldonado.

Yvette: Ah-ah. Del otro lado. La bolita primero y después el palito. [Uh-uh. On the other side. The little ball first and then the little stick.]
Nelson: ¿De este way? [This way?]
Yvette: Del otro. [The other.]
Nelson: ¿Ah? [Huh?]
Yvette: A de ese mismo lado. Haz la bolita. Allí, ¿viste?//Va la bolita primero y el palito.// [On that same side. Make the little ball. There, see? The little ball goes first and the little stick.]
Nelson: //Como la P.// Como la P. [Like the P. Like the P.]
Yvette: No la P es al revés. [No the P is reversed.]
Nelson: Zulma me dijo que así. ¿Así se hace el nueve? [Zulma told me like this. Do you make a nine like this?]
Yvette: No.
Nelson: ¿Ah? Sí. [Huh? Yes.]
Yvette: No.
Nelson: Sí. [Yes.]
Yvette: Mami, ¿cómo se hace el nueve? Miralo. ¿Verdad que se hace la bolita primero y después el palito? [Mommy, how do you make a nine? Look at it. Right you do the little ball first and then the little stick?]

As shown in Figure 2, about half of the strategies used by the siblings were ones in which they directed the learning interaction and appeared to assume responsibility for the teaching that occurred. In the other half, the siblings worked with Nelson, jointly constructing the teaching and learning. In contrast, all but one of Mrs. Martin's strategies were ones in which she was solely in charge of the learning interaction.

Insert Figure 2 about here

Discussion

In this section, I use the concept of guided participation to analyze and compare these teaching strategies. When considering the analysis, it is important to remember that the data presented do not include all of Nelson's interactions. At home, there were interactions with siblings that did not involve school content, interactions with parents, and times when Nelson played alone. In school, he play and worked with peers and alone.

Rogoff (1990) argues that "both guidance and participation in culturally valued activities are essential to children's apprenticeship in thinking" (p. 8). In the cultures studied, she and her colleagues (Rogoff et al., 1993) found two different but equally valid patterns of guided participation: one in which the adult is responsible for teaching and one in which the child is responsible for learning and the adult provides assistance. The analysis of the strategies used by Nelson's teacher and by his siblings suggests that guided participation in the kindergarten most often resembled the former pattern while guided participation at home was a blend of both.

In school. Mrs. Martin was clearly responsible for the teaching that occurred in the classroom and she emphasized verbal participation. She often used the recitation script along with the third turn of the IRE sequence to assess and evaluate the children's knowledge. She was usually the source of the knowledge and correct answers were not negotiable. She informed the children of important information and organized active demonstrations for them. She used strategies for prompting children when they were unable to answer. These strategies were individually constructed in that Mrs. Martin did the work of simplifying the question until the child answered correctly.

Collaborative strategies such as scaffolding were used primarily in less frequent open-ended discussions. Repetition was not collaborative; Mrs. Martin repeated the children's turns to confirm their accuracy and the children only repeated hers aloud when instructed to do so. Collaboration among the children was carefully regulated during lessons. Mrs. Martin did not play with the children, though she often spoke as if she were engaged with them as a peer. Lessons had a single focus; teacher and children were supposed to attend to each other and to the task that the teacher had identified.

At home. Guided participation in Nelson's poor, urban family was a blend of both patterns. At times, Nelson and his siblings worked collaboratively; at other times, one or the other took responsibility for the teaching and learning. Nelson often played a role in determining when, how, and what he learned, sharing responsibility with his siblings for initiating topics and for asking and answering questions. On occasion, the siblings provided assistance that was sensitive to Nelson's learning needs and level of development, scaffolding his learning, not just prompting him to say the right

answer and then evaluating it. Answers were negotiated and were not always possessed by the older siblings.

Most often these interactions, like the ones in school, were verbal. However, in contrast to school interactions, the ones at home were rarely dyadic with a single focus. Teaching and learning were embedded in other activities, sometimes involving play among the siblings, sometimes involving conversations among family members. This embeddedness meant that activities often had multiple foci with many participants speaking in overlapping turns. Participants usually attended to several activities at once.

The siblings also used strategies identified with teachers and described by Rogoff et al. (1993) in urban, middle class families. In these instances, the siblings took responsibility for teaching and identifying what needed to be taught, using the recitation script complete with assessment questions, prompts, and confirmations of Nelson's responses. They provided explicit verbal explanations in dyadic interactions with single foci.

Notably, the siblings sometimes varied these typical teacher strategies. The teaching role was shared by two of them or shared with a parent, the evaluation of Nelson's responses was absent, and scaffolding was used more often than prompting. Unlike the teacher, the siblings also used teasing to push Nelson to display his knowledge just as they used assessment questions.

Research insights. The analysis of these findings suggests four interrelated insights relevant to the research on teaching and learning in families. First, the teaching interactions between Nelson and his siblings blended several different teaching approaches, combining strategies from both patterns of guided participation. Rather than embodying a single, "traditional" style, the interactions constructed by Nelson and his older siblings represented a comingling of resources from the family's experiences.

The teacher-identified style drew on their experiences in school, at home with their parents and, it is likely, in the Kingdom Hall. The more collaborative, embedded style may be associated with the family's Puerto Rican background. McCollum (1989), comparing language use styles in third grade classes in Puerto Rico and on the mainland, describes lessons on the island that had a more reciprocal and collaborative structure. The teacher responded to children's turns rather than evaluating them as the teacher on the mainland did. Studies of Mexican American families (Reese, Gallimore, & Goldenberg, 1996; Valdes, 1996; Vasquez, Pease-Alvarez, & Shannon, 1994) and Puerto Rican ones (Hidalgo, 1994; Soto, 1997) describe a similar emphasis on education within the context of collaborative, family-focused interactions.

Teasing is another strategy that may draw on the family's cultural roots. It has been described (Eisenberg, 1982) as a socialization strategy used by Mexican American parents to encourage their children to behave in appropriate ways. Though teasing is not mentioned in descriptions of Puerto Rican families, it is possible that it is a strategy shared by Latino families of different origins. More research on the styles and qualities of interactions in a variety of Hispanic families is needed, particularly for teachers struggling to establish good relationships with homes.

Second, syncretism has been identified as an important phenomenon in other cross-cultural settings. Duranti and Ochs (1996), in a study of literacy in the homes of Samoans living in the U.S., define syncretic literacy as "an intermingling or merging of culturally diverse traditions [that] informs and organizes literacy activities" (p. 2). They extend the term beyond its usual reference to language to "include hybrid cultural constructions of speech acts and speech activities" (p. 2).

By teaching syncretically, the siblings appeared to function as cultural and linguistic mediators for Nelson. They provided a bridge for him between different ways of teaching and learning associated with home, schools in Puerto Rico and the mainland, and the family's religion. As a result, Nelson experienced both the content and the strategies valued in school within a familiar home context. This preparation for school occurred without the constant evaluation that he experienced in the classroom and in interactions in which he played an active role.

A similar syncretism is described in Gregory's study (1997) of Bangladeshi-origin families living in London. Older siblings helped younger ones learn to read by using reading strategies drawn from the children's Qur'anic classes in a community school and gradually integrating the strategies used by British teachers with which the children were less familiar. In contrast to the teachers, they eliminated evaluation. Gregory argues that the siblings' syncretic approach and sensitive assistance were similar to the assistance provided by parents in Western cultures to young children learning their first language.

Such illustrations of syncretism suggest that more work is needed to describe and analyze the richness of perspectives and practices in varied cultural contexts as well as the role of older siblings in helping younger ones make cross-cultural transitions.

Third, the older siblings played out their role as mediators for Nelson within a family system of socialization, not as substitutes for parents. Parents and older siblings worked together to prepare Nelson for school and to help him develop within the culture of his home. Their joint activities formed a coordinated system of caretaking and teaching as described in the literature (Bryant & Litman, 1987; Watson-Gegeo & Gegeo, 1989; Weisner, 1989).

The broader study of parent-child interactions (Volk, 1997), showed that Nelson's parents engaged in more formal teaching than did his siblings. They were more likely to use the recitation script and such strategies as informing, assessing, and prompting. The parents also provided many informal learning experiences though they did not play with Nelson. Complementing these activities, the siblings provided a range of opportunities for learning that were embedded in play and other meaningful interactions. The family's dual emphasis on preparation for school and family togetherness provided the underpinnings for this coordinated system.

More research is needed to better understand the ways in which siblings complement the socializing work of parents as Nelson's siblings did. Possible differences and similarities between the roles and styles of younger and older siblings, of biological siblings and other members of extended families, and of male and female siblings need to be investigated.

Fourth, the literature on Latino families (Hidalgo, 1994; Reese, Gallimore, & Goldenberg, 1996; Soto, 1997; Valdes, 1996; Vasquez, Pease-Alvarez, & Shannon, 1994) describes characteristic practices and values similar to those of the Maldonados. The emphasis on sibling caretaking and teaching and on the importance of education and of being <u>bien educado</u> are shared by both Mexican Americans and Puerto Ricans. But the literature also suggests that a critical distinction between families within both groups is related to the question of who is responsible for teaching academic content to young children. Some parents believe their job is to prepare their children, not teach them, and, as a consequence, they rarely or never use typical teacher strategies. Other parents, like the Maldonados, use these strategies

mixed with more collaborative ones that are drawn from their cultural heritage. Whether this difference between families is related to migration history and degree of familiarity with the U.S. educational system, as the literature suggests; whether there are differences between Mexican American and Puerto Rican families on this issue because of their countries' distinct historical relationships to the United States; whether the Maldonados' beliefs in evangelical Protestantism or their personal experiences are relevant; these and other possibilities should be investigated in the future.

Implications for Early Childhood Teachers

When Nelson was in her class, Mrs. Martin was, in her own words, trying to be "less authoritarian". In the years since that time, Mrs. Martin has changed. I stayed in touch with her and was able to observe those changes and to talk to her about them.

A few of the changes developed as she understood the study's findings. Most grew from her own interest in learning more about teaching, her participation in master's level courses, her growing understanding of developmentally appropriate practices, and her increased expertise as a teacher. The school's shift to an all-day kindergarten provided time for new ways of teaching and learning. As Mrs. Martin changed, there were fewer contradictions between her beliefs and her practice.

The first change came in her use of the recitation script. While maintaining her role as a strong teacher and her emphasis on teaching needed knowledge and skills, Mrs. Martin experimented with a more collaborative and responsive style that offered children more assistance and less assessment and that seemed more culturally relevant for herself and the children. She improved her ability to elicit responses from children and to listen to them, especially when lessons focused on academic content not just personal experiences. She began to use the third turn of the IRE sequence to ask children to explain and reflect on their responses instead of using it for evaluation only. Children were seen as teachers for other children in whole group, small group, and on-to-one interactions. Though children had always participated in activity centers in her classroom, the variety of learning interactions increased. At any one time, there could be many simultaneous learning interactions with multiple teachers and learners and multiple foci.

As her teaching blended a teacher-centered style with a more collaborative one, Mrs. Martin saw higher levels of participation and competence among the children. This suggests that teachers need to evaluate children in the light of their own practice. It provides a thought-provoking complement to the findings of studies (Gallimore and Goldenberg 1993; Vasquez et al. 1994) that indicate that Latino children are in greater control of the talk at home and display higher levels of language competence there.

Mrs. Martin's new, more syncretic, style reflects the syncretism found in Nelson's home in the interactions with his siblings. Notably, research suggests that it may be more common to find parents blending approaches than teachers. In a study of the perspectives of Black, White, and Latina low-income mothers on preparing their young children for school (Holloway, Rambaud, Fuller, & Eggers-Piérola, 1995), researchers found that the mothers blended approaches from different resources in their lives. Despite an emphasis on didactic school preparation, their perspectives were more "inclusive" (p. 469) than those of some middle class parents and teachers described in other research.

The second effort at change grew more directly from this study. Working with the researcher, Mrs. Martin began to develop a small proposal to get funding from the school district to integrate siblings into her parent involvement efforts. While this plan was not implemented, the intent was to build on the kindergartners' experiences learning with their siblings at home and the siblings' experiences and skill as teachers. We planned to invite siblings (as well as extended family members and family friends) to meetings with parents to introduce them to kindergarten. A series of sessions would provide specific guidance in reading with younger siblings. These sessions would build on known practices and teach new ones and would provide older siblings with opportunities to improve their own reading skills. Older and younger siblings would practice together and would take books home to read.

Mrs. Martin could also apply the model of sibling teaching through multi-age groupings within her classroom. She might invite in older children to read with her kindergartners or to help them practice needed skills during games or joint projects. As the older ones helped the younger ones, they would further their own learning in interactions that reflected familiar home experiences for many of them.

Such efforts suggest that early childhood teachers, particularly those of Latino children, could broaden their approach to <u>parent</u> involvement to one of <u>family</u> involvement. This change would be based on two assumptions drawn from both the cross-cultural literature and this description of Nelson's family. First, teachers need to recognize that families are resources for children, as much as the more commonly-identified resources of money and education. Second, teachers need to broaden their understanding of families, to understand how others define "the family," its roles and its members.

To build on these assumptions, teachers might begin by developing relationships with families and giving them credit for all they do to support their children's learning. Teachers might express appreciation for children's respectful attitudes and demeanor as well as their knowledge and skills. Comments on report cards, in weekly newsletters, at school assemblies, or meetings could highlight the work of families. Parents and siblings could share what they do with others at meetings, modeling how they help with homework, for example. Activities in school to develop children's self-esteem could focus on ways that children help others in their families and classroom communities in addition to their individual achievements.

In sum, insights into the teaching and learning that occurred between Nelson and his older siblings provide many suggestions for ways that teachers can change their practice. The Maldonado family's perspective that integrates family togetherness with preparation for school provides guidelines as well. Change that involves teachers, parents, and siblings in new ways in the teaching/learning process should be done in ways that maintain respect for all those who teach. Achievement should be understood in the context of caring relationships, not at their expense. As illustrated in this article, creating a community of children and adults in the classroom and establishing close and respectful bonds with families are not peripheral concerns for early childhood teachers but are essential to many children's learning.

Endnotes

1. Pseudonyms have been used for all the participants in this study.

2. While the majority of Puerto Ricans are Catholic, evangelical Protestantism has become increasingly widespread in recent years among Puerto Ricans, specifically, and among Latinos as a group, in this country and in Latin America (Pinsky, M.I., 1997).

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Figure 1

Teaching Strategies Used by Siblings during Teaching/Learning Interactions

interaction	participants	strategies	duration	interaction	participants	strategies	duration
1) puzzle	Nelson,Luis Robert	prompting informing confirming scaffolding illustrating directing repetition requesting clar. negotiating	60 min.	2) Connect 4	Nelson,Yvette, Robert	assessing informing confirming scaffolding illustrating directing repetition/ overlapping speech requesting clar. negotiating	23 min.
3) puzzle	Nelson, Robert	informing directing requesting clar. negotiating	21 min.	4) stickers	Nelson,Yvette, Robert	informing confirming directing repetition requesting clar.	12 min.
5) coloring	Nelson,Luis Robert,Sra & Sr M	assessing teasing negotiating	15 min.	6) Connect 4	Nelson, Nati, Yvette,Robert, Sra M	assessing directing	8 min.
7) birthday	Nelson,Yvette, Robert,Nati, Joey,Sra M	assessing informing teasing	5 min.	8) Connect 4	Nelson,Yvette, Robert	assessing illustrating directing repetition requesting clar. negotiating	30 min.
9) baseball cards	Nelson,Yvette, Robert	informing illustrating	7 min.	10) Chinese checkers	Nelson,Yvette, Robert	assessing informing scaffolding illustrating directing requesting clar. negotiating	13 min.
11) coloring	Nelson,Robert	informing illustrating repetition requesting clar.	8 min.	12) talking	Nelson,Zulma Yvette,Nati, Sr & Sra M	assessing/ evaluating prompting informing teasing confirming directing repetition requesting clar. negotiating	100 min.

13) dot-to-dot	Nelson, Yvette, Robert, Sra M	informing repetition/ overlapping speech negotiating	20 min.	14) numbers	Nelson, Yvette, Robert	informing illustrating directing repetition/ overlapping speech negotiating	3 min.
15) tictactoe	Nelson, Yvette, Robert, Sra M	illustrating directing requesting clar. negotiating	2 min.				

Figure 2

Comparison of Teaching Strategies of Sibling Teachers & School Teacher

Teaching Strategies	Sibling Teachers	School Teacher
Teacher-only strategies	Assessing/Evaluating Prompting Informing Teasing Confirming	Assessing/Evaluating Prompting Informing Repetition Requesting clarification Demonstrating Regulating/Focusing Asking another for help
Joint strategies	Scaffolding Illustrating Directing Repetition/Overlapping speech Requesting clarification Negotiating	Scaffolding

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